SWIMMING POOL SERVICE TECHNICIAN NEWSLETTER

Los Angeles County - Department of Public Health - Environmental Health - Swimming Pool Program

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RENEWAL FEES

The renewal fee for the Swimming Pool Technician and Apprentice Technician certification for fiscal year 2008/2009 remains at $32.00. The cost to replace a wallet card or certificate is $10.00 and can be obtained by contacting our office.

Please notify our office by mail or telephone if you move. We have no way of contacting you for renewal if the forwarding address expires. Individuals with accounts that are delinquent over two years will be decertified and be required to take the examination over again to become recertified.

The fee for taking the Swimming Pool Service Technician or Apprentice Technician Examination remains at $166.00.

You can contact our office Monday through Friday from 8:00 a.m. to 4:30 p.m. at (626) 430-5360 or write to us at Los Angeles County, Environmental Health, Swimming Pool Program, 5050 Commerce Drive, Baldwin Park, CA 91706.

WEBSITE

Visit our web site for information on our technician program, public pool maintenance and operational requirements, and pool plan check and renovation requirements. Go to: http://www.publichealth.lacounty.gov/eh/sp.htm

POOL CLOSURES

A public pool will immediately be closed if the following violations are observed during an inspection. The pool will be reopened only after all violations are corrected. Swimming Pool Service Technicians observing any of these conditions should close the pool until violations can be corrected:

1. Cloudy water or algae where the main drain is not clearly visible from the pool deck.
2. Lack of a disinfectant residual in the pool water.
3. A chlorine residual in excess of 10 ppm.
4. Chemical quality of pool water, including pH, that may have a detrimental effect on the health of pool users.
5. A broken, loose, or missing suction drain cover.
6. An electrical hazard that is an immediate threat to the health or safety of pool users.

VIRGINIA GRAHAM BAKER POOL ACT

In 2007 Congress passed the Virginia Graham Baker Pool Safety Act. This act offers States federal funds if they enact specific safety requirements regarding suction drains and enclosures at both public and private pools. This legislation is not a federal mandate and at the present time the State of California has not enacted any requirements regarding this act. Current requirements by this Department for suction drains and enclosures at new public pools meet the requirements of the Baker act. At the present time, current law in California does not require provisions of the Baker act be carried out. Any change to this would have to come from the State Department of Health Services**.** Check our web site for future updates.

POOL ENCLOSURES

Part of your responsibility as a Swimming Pool Technician is to routinely check the pool enclosure. Make sure gates and doors leading to the pool are self-closing and self latching. Make sure there are no missing or loose pickets or holes in the fence. If it is not your responsibility to make repairs be sure and tell the manager, owner, or homeowners association president about the items needing repair as soon as possible.

DRAIN COVERS

Make sure all drain covers are properly secured with screws or fasteners, so that they are removable only with tools. Pools with broken, loose, or missing suction drain covers should be closed immediately and remain closed until repairs are made.

PLAN APPROVAL IS REQUIRED WHEN RENOVATING OR CHANGING EQUIPMENT ON A PUBLIC POOL

All persons replastering or resurfacing any type of **public or commercial pool**, or making modifications to the pool equipment or pool shell, are required to submit plans to this Department prior to commencing the work and in advance of the issuance of any permits.
For information on pool resurfacing, renovations or equipment changes, contact our office or visit our web site.

The Centers for Disease Control have changed their recommendations for disinfection of pools following fecal accidents. The revised procedure can be found on the reverse side.

Revised Instructions for Management of Fecal Accidents at Public Pools

1. For both formed-stool and diarrheal/loose stool fecal accidents - direct everyone to leave the pool. Close the pool. Do not allow anyone to enter the contaminated pool until all decontamination procedures have been completed. If you have multiple pools that use the same filter, close all pools.

2. For both formed-stool and diarrheal/loose stool fecal accidents - remove as much of the fecal material as possible using a net or scoop and dispose of it in a sanitary manner. Clean and disinfect the net or scoop (e.g., after cleaning, leave the net or scoop immersed in the pool during the disinfection period). Vacuuming stool from the pool is not recommended. If the pool is vacuumed, waste should be directed directly to a sanitary sewer and not through the filtration system of the pool.

Formed stool in pool

3. Raise the free chlorine concentration to 2.0 ppm (mg/L) and ensure the pH is between 7.2 and 7.5 and the water temperature is about 77 º F (25 º C).

4. Maintain the free available chlorine concentration at 2 ppm and the pH at 7.2 - 7.5 for at least **25 minutes**. This is equivalent to a CT value of 50. (For a definition of CT see notation "A"below)

   If the pool is using stabilized chlorine or contains cyanuric acid check the cyanuric acid level. If the cyanuric acid level is greater than 50 ppm the pool should be drained and filled with fresh water until the cyanuric acid level is below 50 ppm. Maintain the free available chlorine concentration at 2 ppm and the pH at 7.2 - 7.5 for at least **2 hours**. This is equivalent to a CT value of 240.

5. Ensure that the filtration system is operating during the entire disinfection process and the free available chlorine concentration and pH are maintained at the proper levels.

6. The pool may be reopened after the disinfection process is completed and the free available chlorine concentration is below 5.0 ppm and the pH between 7.2 and 7.8.

Diarrhea or loose stool in pool

3. Raise the free chlorine concentration to 20 ppm (mg/L)and ensure the pH is between 7.2 and 7.5 and the water temperature is about 77 º F (25 º C).

4. Maintain the free available chlorine concentration at 20 ppm and the pH at 7.2 - 7.5 for at least **12.75 hours**. This is equivalent to a CT value of 15,300. (For a definition of CT see notation "A"below)

   If the pool is using stabilized chlorine or contains cyanuric acid check the cyanuric acid level. If the cyanuric acid level is greater than 50 ppm the pool should be drained and filled with fresh water until the cyanuric acid level is below 50 ppm. Maintain the free available chlorine concentration at 20 ppm and the pH at 7.2 - 7.5 for at least **60 hours**. This is equivalent to a CT value of 72,000.

5. Ensure that the filtration system is operating during the entire disinfection process and the free available chlorine concentration and pH are maintained at the proper levels.

6. After the disinfection process is completed, the filter should be throughly backwashed to a sanitary sewer. The pool may be reopened after the free available chlorine concentration is below 5.0 ppm and the pH between 7.2 and 7.8.

7. Establish a fecal accident log. Document each fecal accident by recording the following information:

   - Date
   - Time of the event
   - Formed stool or diarrhea
   - Free available chlorine concentration and pH at the time of observation of the event
   - Free available chlorine and pH before reopening the pool
   - Contact time
   - Procedures followed to respond to the fecal accident, including the process used to increase the free chlorine residual if necessary.

8. In the event of contamination with vomitus in a pool, the procedures for a "formed stool" should be followed.

Important Notes!

A. CT inactivation value (or contact time) refers to concentration (C) of free chlorine in ppm multiplied by time (T) in minutes at a specific pH and temperature. Any combination of chlorine concentration and time may be used to arrive at a particular CT value. For example, a chlorine concentration of 10 ppm for 1,000 minutes has a CT value of 10,000 and is equivalent to a chlorine concentration of 20 ppm for 500 minutes. Both have a CT value of 10,000.

B. Fecal accident pool closure procedures are based on recommendations by the Centers for Disease Control and Prevention. (http://www.cdc.gov)

C. Short-time closure is based on the inactivation of 99.9% of Giardia cysts derived from the EPA's Disinfection Profiling and Benchmarking Guidance Manual. Long-time closure is based on the inactivation of 99.9% of Cryptosporidium oocysts.

D. The impact of chlorine stabilizers (pools with cyanuric acid) on pathogen inactivation is unclear and warrants further investigation. Stabilized chlorine includes compounds such as dichlor and trichlor. Laboratory studies suggest that Crypto inactivation may not be achieved in the presence of 50 ppm of cyanuric acid even after 24 hours at 40 ppm free available chlorine, pH at 6.5 and a temperature of 77 º F (25º C).

E. Many conventional test kits cannot measure free available chlorine in the range that includes 20 ppm. Use a chlorine test kit that can measure in this range or use a conventional kit and make dilutions using chlorine-free water.

F. High levels of chlorine may damage pool equipment. Exercise caution or consult with an experienced aquatic professional.

G. Non-chlorine disinfectants are not addressed in this procedure and should not be used.

H. If the pool is low volume, such as a small pool, spa pool or wading pool, the pool may be drained. The pool should be refilled, the water balanced and the proper CT value achieved before being reopened.

I. ppm = parts per million or mg/L